



## **“How Are Burn Day Decisions Made?”**

[www.placer.ca.gov/airpollution/airpolut.htm](http://www.placer.ca.gov/airpollution/airpolut.htm)

Placer County is divided amongst three (3) different air basins, *Sacramento Valley*, *Mountain Counties*, and *Lake Tahoe*. The California Air Resources Board (ARB), uses specific criteria (California Code of Regulations-Title 17) to determine the burn day decisions. The Placer County Air Pollution Control District provides this burn day information to the public each day by 8 a.m.

### **What Are the Specific Title 17 Criteria Used?**

- ◆ Based on a meteorological value called the 500-millibar (mb) height. The 500 mb height means:
  - ◆ Entire weight or mass of a column of air spread over a small area at the surface of the earth is defined as a bar.
  - ◆ One thousandth of that mass is a millibar.
  - ◆ Half of the mass of the column of air is 500 mb.
  - ◆ 500-mb heights typically average 18,300 feet above sea level.
- ◆ Weather information is collected.
  - ◆ Weather balloons, with meteorological equipment, are launched twice a day.
  - ◆ Launch sites are at strategic locations on the west coast with Reno and Oakland closest to Placer County.
  - ◆ Meteorological equipment measures temperature, moisture, pressure, wind speed and direction, and mb heights.

### **How Are the Criteria Used to Determine a NO Burn Day?**

#### *Mountain Counties and Lake Tahoe Air Basin NO Burn Day Criteria*

- ◆ When the 500 mb heights are higher than the limiting mean height specified in Title 17 criteria a ridge of high pressure has formed.
- ◆ An inversion forms with warm air aloft and cooler air below.
  - ◆ Smoke created below is trapped under the inversion or can be blown in and trapped.
- ◆ High pressure ridges are very large and move slowly.
  - ◆ Troughs of low ridges follow high pressure ridges.

#### *Sacramento Valley Air Basin NO Burn Day Criteria*

- ◆ Minimum morning temperatures are compared to temperatures aloft which are gathered by aircraft daily.
- ◆ Morning stability calculated from average of temperatures at 3000 feet minus minimum surface temperatures.
- ◆ Coefficient of Haze (COH) monitors, located valley wide, collect particulate measurements.
- ◆ If morning stability is 17+ and the early morning average of COH monitors exceeds 3, then it is a no burn day.

### **How Are the Criteria Used to Determine a Burn Day?**

#### *Mountain Counties and Lake Tahoe Air Basins Burn Day Criteria*

- ◆ Determined by forecasted weather conditions and compared to Title 17 criteria.
- ◆ Issued the day before a burn day.

#### *Sacramento Valley Air Basin Burn Day Criteria*

- ◆ Determined by current air quality, and;
- ◆ An estimation of the amount of burning that can be done without adversely affecting air quality on the burn day.
- ◆ Issued the morning of the burn day.

### **Why Are Rainy Days Generally Burn Days?**

- ◆ Good smoke dispersion with smoke rising upward.
- ◆ Rain-washes smoke particles out of the air.
- ◆ Smoke is less likely to create a public nuisance.

For more information, contact the Placer County Air Pollution Control District at (530) 889-7130.